

PATENT  
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APPLICATION FOR UNITED STATES LETTERS PATENT

for

BOX FOR SHIPPING AND DISPLAYING PRODUCT

by

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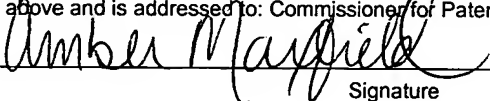
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## **BOX FOR SHIPPING AND DISPLAYING PRODUCT**

### **CROSS-REFERENCE TO RELATED APPLICATIONS**

[0001] This application claims the benefit of U.S. Provisional Application Serial No. 60/425,540, filed November 12, 2002.

### **FIELD OF THE INVENTION**

[0002] The present invention relates generally to a box and, more particularly to a box for shipping a product and having removable panels for displaying the product.

### **BACKGROUND OF THE INVENTION**

[0003] Boxes made of cardboard or other suitable material are used to ship products from a vendor to a store. Once the box is at the store, an employee typically opens the box and stocks the product on shelves along the aisles of the store. Alternatively, the employee stocks the product on display racks throughout the store. Stocking products on shelves or display racks can be time consuming. In addition, a typical store may have a limited number of shelves or display racks to hold the product. Consequently, it can be beneficial to display the product using the boxes in which the product is shipped.

[0004] The boxes may not be versatile so that the product can be selectively displayed and removed from one or several sides. Furthermore, problems may be encountered when attempting to stack the boxes to form a display. For example, the boxes may not be capable of being stacked on top of one another while displaying product. This and other problems can be further aggravated when the product in the box is heavy. For example, a box containing twelve, 12-fluid ounce plastic beverage bottles can weigh about 10 lbs. Additionally, when creating a stackable display from solid boxes, workers using a razor or knife to cut openings in the boxes can potentially damage the products.

[0005] The present invention is directed to a box for shipping and displaying a product. The box is intended to overcome, or at least reduce the effects of, one or more of the problems set forth above.

### **SUMMARY OF THE PRESENT DISCLOSURE**

[0006] A box for shipping and displaying a product is disclosed. The box is formed from a plurality of sidewalls with flaps. Removable panels are preformed in the box. With the panels intact, the product can be fully enclosed and protected within the box when shipped. With the panels removed, the box is capable of displaying the product from four sides and from a top of the box. The product can be removed from the openings formed by the removed panels. The box retains a substantial amount of integrity when the panels are removed, which allows the box to be stacked with like boxes to form a display.

[0007] The foregoing summary is not intended to summarize each potential embodiment or every aspect of the present disclosure.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

[0008] Aspects of the present disclosure will be best understood with reference to a detailed description of specific embodiments, which follows, when read in conjunction with the accompanying drawings, in which:

Figure 1 illustrates a box for shipping and displaying product according to the present invention in an unassembled state.

Figure 2 illustrates a perspective view of the box of Figure 1 in partially assembled state.

Figures 3A-D illustrate various views of the box of Figure 2 in an assembled state.

[0009] While the disclosed box is susceptible to various modifications and alternative forms, specific embodiments thereof have been shown by way of example and are herein described in detail. The figures and written description are not intended to limit the scope of the inventive concepts in any manner. Rather, the figures and written description are provided to illustrate the inventive concepts to a person of ordinary skill in the art by reference to particular embodiments, as required by 35 U.S.C. § 112.

## DETAILED DESCRIPTION

[0010] Referring to Figures 1 and 2, a box 10 according to the present invention for shipping and displaying a product (not shown) is illustrated in an unassembled and a partially assembled state. As best shown in Figure 1, the box 10 is initially formed from a longitudinal piece 12 of material, such as cardboard or other suitable material. A pair of first sides 20a, 20b and a pair of second sides 50a and 50b are formed by a combination of cuts, crimps, and perforations made in the longitudinal piece 12 of material. As is typical in the art of forming boxes, one end of the longitudinal piece 12 has a connection member or tab 14 for attaching by glue or other methods known in the art to another end 16 of the longitudinal piece 12. By connecting the ends 14 and 16, the longitudinal piece 12 forms a four-sided shape, such as shown in Figure 2.

[0011] The first sides 20a and 20b are substantially identical to one another and are formed to oppose one another when the box 10 is assembled. The first sides 20a and 20b each include a sidewall 22 having a lower flap 24 connected along a bottom edge 25 and having a first flap 26 connected along a top edge 27. The lower flaps 24 form a portion of the bottom of the box 10 when assembled, while the first flaps 26 form a portion of the top of the box 10 when assembled. Preferably, the bottom and top edges 25 and 27 are perforated, allowing easy bending or removal of the flaps 24 and 26.

[0012] The second sides 50a and 50b are substantially identical to one another and are formed to oppose one another when the box 10 is assembled. The second sides 50a and 50b each include a second sidewall 52 having a lower flap 54 connected along a bottom edge 55 and having a second flap 56 connected along a top edge 57. The lower flaps 54 form another portion of the bottom of the box 10 when assembled, while the second flaps 56 form another portion of the top of the box 10 when assembled. Preferably, the bottom and top edges 55 and 57 are perforated, allowing easy bending or removal of the flaps 24 and 26.

[0013] The first sidewalls 22 of the first sides 20a and 20b have first removable portions or panels 30 defined therein, and the first flaps 26 of the first sides 20a and 20b have second removable portions or panels 40 defined therein. The first removable panels 30

are formed by perforated outlines 32 defined in the sidewalls 22. The first removable panels 30 each preferably include an access piece 34 formed adjacent the perforated outline 32. The access piece 34 facilitates the removal of the panel 30. A user can punch or press out the access piece 34 to create an opening for removing the removable panel 30. Removed or removable corners 36 of the first removable panel 30 are cut and preferably removed during formation of the box. The removed or removable corners 36 reduce the potential for improperly tearing the material of the box 10 when the perforated outlines 32 of the removable panels 30 are separated from the sidewalls 22.

[0014] The second removable panels 40 in the first flaps 26 are formed by perforated outlines 42 defined in the first flaps 26. The second removable panels 40 each preferably include an access piece 44 and removed or removable corners 46 being substantially similar to those described above. The first and second removable panels 30 and 40 share corners 38. The shared corners 38 of panel 30 are also cut and preferably removed during formation of the box 10. In addition to reducing improper tearing when removing the panel 30 and/or the panel 40, the removal of the shared corners 38 enables the first flaps 26 to be bent relative to the first sidewalls 22 without prematurely separating the perforated outlines 32 and 42.

[0015] In the present embodiment, the first and second removable panels 30 and 40 are adjacent and share a common edge 31 with one another. In one aspect of the present embodiment shown in Figure 2, the common edge 31 integrally connects the first and second panels 30 and 40 together, in which case both panels 30 and 40 are removed together from the box 10 when preparing the box 10 to display product. The integrally connected edge 31 can be creased to facilitate bending. In an alternative aspect of the present embodiment, the common edge 31 can be separable or perforated such that the first and second panels 30 and 40 can be selectively removed from the box 10. In other words, either one or both of the panels 30, 40 could be removed from the box 10 when preparing the box 10 to display product. For example, the first panel 30 can be torn along its perforated outline 32 and torn along the separable common edge 31 shared with the second panel 40. Thus, only the first panel 30 can be removed from the box 10 to display product through a first side 20a, while the adjacent, second panel 40 can be maintained

on the box 10. Of course, the reverse can also be performed to remove the second panel 40 and not the first panel 30. In addition, the first and second panels 30 and 40 can be removed together at the same time from the box 10 along their perforated outlines 32 and 42, while not separating the common edge 31. Preferably, the common, separable edge 31 is a portion of the perforated top edge 27.

[0016] Alternatively, the first and second removable panels 30 and 40 may not share a common edge. In this alternative embodiment, the first and second panels 30 and 40 would be separately removable from the box 10 and would form separate openings in the side 22 and flap 26 of the box 10. Therefore, the first panel 30 would be enclosed by the perforated outline 32 being defined entirely in the first side 22, and the second panel 40 would be enclosed by the perforated outline 32 being defined entirely in the first flap 26.

[0017] The second sides 50a and 50b of the box 10 have third removable portions or panels 60 defined therein. The third removable panels 60 are formed by perforated outlines 62 defined in the sidewalls 52. The third removable panels 60 each include an access piece 64 and removed corners 66 being substantially similar to those described above. The perforated outlines 62 of the third removable panels 60 can form handle members 68 in the sidewalls 52. The portions of the perforated outline 62 forming the handle member 68 can be separated from the third removable panel 60 and bent for a user to hold, which can prevent inadvertent tearing of the second sides 50a and 50b.

[0018] The second flaps 56 each include portions 70a and 70b that position adjacent the second panels 40 when the box 10 is assembled. These portions 70a and 70b allow the product in the box 10 to be exposed when the second panel 40 is removed. In the present embodiment, the second flaps 56 each include fourth panels or removable corner portions 70a and 70b defined by perforated outlines 72. As described below and best shown in Figure 2, the removable corner portions 70a and 70b align with the second panels 40 on adjacent first flaps 26 when the box 10 is assembled. Preferably and as shown in Figures 1-2, these corner portions 70a and 70b are removable from the box 10 so that they are attached to the second flaps 56 when the box 10 is assembled for shipping product but can be removed when the box 10 is used for displaying product. Alternatively, these

corner portions 70a and 70b can be pre-cut and removed prior to assembling the box 10 for shipping product. Having the corner portions 70a and 70b pre-cut and removed will not undermine the structural integrity of the box 10 and will not allow the product to come out of the box 10 when assembled. As also described below, each of the second flaps 56 defines a slot 58 for receiving a deformable corner 28 of an adjacent first flap 26.

[0019] Referring to Figure 2, the box 10 is shown partially assembled. The ends 14 and 16 have been attached so that the sides 20a, 20b, 50a, 50b form a four-sided shape. In assembling the box 10, the bottom flaps (not visible) have been bent inward to form the bottom of the box 10 and have been attached together by tape, glue, staples, or other methods known in the art. The product (not shown) can be positioned within the sides of the box 10, and the second flaps 56 then bent inward, as illustrated in Figure 2.

[0020] To completely enclose the product, the first flaps 26 are then positioned adjacent the second flaps 56. When the first flaps 26 are positioned adjacent the second flaps 56, the removable corner portions 70a and 70b of the second flaps 56 become aligned with the second panels 40 on adjacent first flaps 26. As noted above, these corner portions 70a and 70b can be pre-cut and removed prior to assembling the box 10. The flaps 26 and/or 56 are then attached together by tape, glue, staples, or other methods known in the art. Thus, the box 10 is loaded and prepared for shipping the product. The box 10 fully encloses the product and can be moved and stacked without emptying or damaging the product contained therein.

[0021] Use of the box 10 for display will now be discussed with reference to Figures 3A-D, which respectively illustrate the box 10 in a first side view, a second side view, a top view, and a bottom view. Once the loaded box 10 has reached a desired location, the removable panels 30, 40, 60, and corner portions 70a and 70b can be selectively removed to display the product P contained in the box 10. In Figures 3A-D, the product P is depicted as being cylindrical. The embodiment of the box 10 disclosed herein is particularly suited for shipping and displaying beverage bottles. With the benefit of the present disclosure, however, one of ordinary skill in the art will appreciate that the present invention is not limited to use with cylindrical products or beverage bottles.

[0022] As best shown in the side view of Figure 3A, a first removable panel (not shown) in the first side 20a has been removed to create a first opening 31 in the box 10. As best shown in the top view of Figure 3C, a second removable panel (not shown) in the first side 20a has been removed to create a second opening 41 in the box 10. For illustrative purposes, one of the corner portions 70a is shown still attached to one of the second flaps 56. The other removable corner portion (not shown) has been removed to expose the product P from an opening 71 being adjacent the opening 41 of the second, removed panel. As best shown in the side view of Figure 3B, a third removable panel (not shown) in the second side 50a has been removed to create a third opening 61 in the box 10. The handle 68 extends into the opening 61 and can be bent into the box 10 for strengthening the edge of the opening 61 when a person lifts the box 10.

[0023] It will be appreciated that not all of the removable panels need to be removed to display the product P. Rather, the panels can be removed to selectively display the product P from one or more perspectives. For example, only a first panel may be removed to display the product P through a first opening 31, especially if other boxes are stacked on the top and the sides of the box 10 to form a display.

[0024] With panels removed, the product P within the box 10 is exposed. Not only is the product P visible through the openings 31, 41, 61, and 71, but the product P can also be removed from the openings 31, 41, 61, and 71, depending on the size of the product relative to the openings. Although panels are removed, the box 10 is capable of maintaining a substantial amount of structural integrity. For example, all the edges of the box 10 are left intact when all the panels are removed. Further maintaining the integrity of the box 10, the bottom flaps 24 and 54 remain in tact and attached together, as best shown in Figure 3D. In addition, the first and second flaps 26 and 56 remain substantially in tact and can remain connected to one another, although panels may have been removed, as best shown in Figure 3C.

[0025] As best shown in Figure 3C, the deformable corners 28 of the first flaps 26 can be inserted in the slots 58 defined in the second flaps 56. The deformable corners 28 and slots 58 enable the box 10 to be temporarily resealed after the flaps 26 and 56 have been



unsealed. Unsealing the flaps 26 and 56, however, is not necessary to remove panels nor is it not necessary to remove the product P from the box 10.

[0026] The foregoing description of preferred and other embodiments is not intended to limit or restrict the scope or applicability of the inventive concepts that were conceived by the Applicant. In exchange for disclosing the inventive concepts contained herein, the Applicant desires all patent rights afforded by the appended claims. Therefore, it is intended that the invention include all modifications and alterations to the full extent that they come within the scope of the following claims or the equivalents thereof.